Dissemination of technology Training for teachers of SMAN Kembangbahu in managing synchronous online learning

Ratna Nurdiana [a,1,*], Sutarum [a,2], Hadi Suryanto [a,3]

[a] Universitas PGRI Adi Buana Surabaya, Surabaya, Indonesia
[1] ratnanurdiana128@gmail.com; [2] msutarum311@gmail.com; [3] hsuryanto3@gmail.com
* Corresponding Author

ABSTRACT

The purpose of the synchronous online learning management training is to improve the skills of teachers in implementing face-to-face online learning. The training method uses the in-out method. This means that it is done face-to-face and online so that training participants experience online learning directly guided by a mentor. Participants are teachers at SMAN Kembangbahu as many as 42 people. During the training, many participants were initially still not used to using online learning procedures to the fullest, such as the procedure for being present 10 minutes before online learning, turning on the participant's camera, asking for readiness, asking questions and interacting. After participating in the training, participants realized that implementing a good procedure actually made it easier for teachers to carry out learning. The importance of managing synchronous online learning made the participants very enthusiastic during the training.

KEYWORDS
Teacher training;
online learning;
synchronous

1. Introduction

The impact of covid-19 is still hitting Indonesia, various efforts have been made in the form of policies including vaccinations by the government for the community for free and the imposition of restrictions on community activities or PPKM to level 4 and policies by the ministers of education, culture, research and technology regarding the implementation of learning in schools [1]. With this policy, the government temporarily abolished face-to-face classes and replaced them with online learning-based learning [2]. Online learning has finally officially passed in Indonesia, applies comprehensively at all levels of education [3]. The current pandemic conditions require educators, in this case, teachers to innovate in changing face-to-face learning patterns into face-to-face learning patterns [4]. The implementation of bold learning that is carried out quickly at all levels of education due to the influence of Covid-19, forces educators to be able to adapt to the new comprehensive educational paradigm that is happening in Indonesia, namely e-learning [5]. E-learning requires all learning processes, teaching materials, assessments to be carried out by utilizing electronic equipment from which previously many used paper [6]. The learning process in the knowledge network is sufficient for educators and students to understand e-learning [3], [7], [8]. Learning in the network requires good procedures in the implementation of the learning process [9]. The National Joint Committee on Learning Disabilities (NJCLD) stipulates that "Barriers to Learning Development" are a general term regarding barriers to heterogeneous groups that are truly Barriers, Solutions and Hopes: online learning during the Covid-19 pandemic by elementary school teachers [10]–[13]. Brave electronic learning or online learning and there is also what is called online learning is a learning activity that utilizes networks (internet, LAN, WAN) as a method of delivery, interaction and facilities and is supported by various other forms of learning services [14]–[17].

The contribution of this community service is to apply online learning theory from previous research to prevent the transmission of the COVID-19 virus. In practice, educators need to understand bold learning procedures so that it is easy to make adjustments between teachers and students and between students, this activity is to create a good classroom environment to support bold learning [18]. The right

learning delivery strategy will create a learning environment that can maximize learning objectives [19]. The environment affects the process of interaction between students in the classroom, therefore the learning environment is arranged so that the process of interaction and student creativity becomes better [16], [20]–[22]. Some of the important procedures in bold learning include; students must enter brave class 10-15 minutes before class starts, camera must be turned on, teacher must ensure students' readiness to take bold class, open class with greetings and check students to ensure students' readiness and interest so that they focus on taking courageous class [23]. The provision of material carried out by the teacher in this activity needs interaction so that all can focus more on learning activities [24]. Closing Activities, the teacher reviews the material given and gives assignments if there are and then closes with greetings [25]. Learning preparation procedures need to be carried out and this is what distinguishes it from offline learning [26]. Daring is a policy in dealing with the covid-19 pandemic, meaning that this policy is carried out thoroughly throughout Indonesia [8], [27], [28]. For policy educators in Indonesia, this is a new thing, especially in primary and secondary schools where all accustomed to engaging in learning are forced to do bold learning, therefore it is necessary to provide assistance for teachers to do bold learning [29]. Characteristics of students need to be considered in choosing learning methods so that learning objectives can be achieved [5], [30]–[32]. The increase in distance learning activities is influenced by adequate preparation, use of technology and maintenance of the learning environment during the COVID-19 pandemic, the effectiveness of distance learning is influenced by the behavior of children, other children, parental mediation, and positive media reinforcement.

2. Method

The community service method is carried out using the synchronous bold method. Direct online learning with face to face during training. During the learning process, the speaker spoke directly using the zoom application, also saw learning videos and interactions in the form of questions and answers. This activity was carried out in the even semester of 2020/2021 with the aim of community service to all teachers at SMAN Kembangbahu.

3. Results and Discussion

The data information obtained is qualitative data through questionnaires distributed to teachers at SMAN Bungabahu. Questionnaires were given before and before community service to obtain clear information about understanding the procedures for implementing bold learning. The material given is the management of synchronous daring learning and learning evaluation. Participants are teachers at SMAN Kembangbahu shown in Table 1. The table shows that various fields of science with the number of respondents 18 men with a percentage of 43% and 24 women with a percentage of 57%. Respondents aged 25-40 were 20 with a percentage of 48% and ages 41-60 were 22 or 52%.

Table 1. Table of characteristics of respondents

No.	. Characteristics		N	Percentage
1	Gender	Male	18	43%
		Fimale	24	57%
		Total	52	100%
2	Age	25-40	20	48%
		41-60	22	52%
		Total	52	100%

Community service activities at SMAN Kembangbahu through training for teachers in online learning synchronous are carried out through several stages, namely: pre-activity. Community service activities and post activities.

3.1. Pre activity

At this stage the community service team explores information related to the level of teacher understanding in managing synchronous online learning shown in Fig. 1. The figure shows that the information obtained, the level of understanding of the synchronous online learning implementation procedure was obtained.

Fig. 1. Socialization and planning of community service programs

This process is carried out to prepare various needs during community service shown in Table 2.

Table 2. Stages of educational activities

No.	Purpose	Method/Form of Activity
1.	Identify Behavior (Knowledge, Attitude, and Action)	Filling Out the Questionnaire
2.	Equalization of understanding of lecture material,	YouTube screenings related to knowledge, discussion
3.	Behavior Identification (Knowledge, Attitude, and Action)	Filling Out the Questionnaire

The results of the questionnaire provided obtained the following data:

- Knowledge

  In this dimension, most teachers have good knowledge about managing synchronous online learning. This is known after a question and answer session at the beginning of the question and answer session. Almost all of them have good knowledge in synchronous online learning.

- Attitude

  Attitude dimensions of all teachers have attitudes that support a good courageous learning process. high motivation in participating in activities from start to finish all looked very enthusiastic. Some teachers said they were very excited because this activity was needed for them.

- Action

  In the action dimension, it turns out that some teachers have not been able to fully manage learning well, it can be seen that some teachers have not implemented it early in every learning activity shown in Fig. 2. The figure shows that 15 teachers when studying with zoom did not require students to activate the camera and more than 42 teachers did not ask students to introduce themselves as a form of readiness to participate in the learning process.

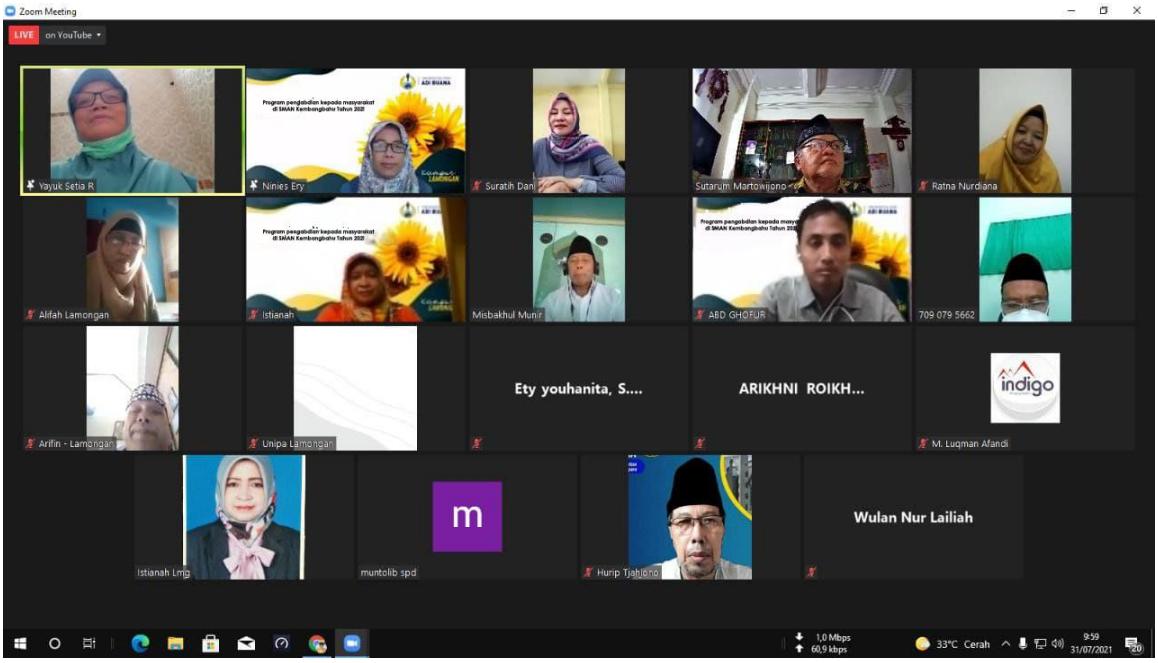

Fig. 2. Implementation of training for teachers with zoom

3.2. Implementation

The implementation for teachers in managing the synchronous training learning class is carried out using the zoom application. In this activity, it is also the management of the learning class that dares to synchronize with the procedures that have been previously set. In the initial stage, the trainees were asked to enter the brave class 25 minutes before the event started, participants were asked to use a good room with comfortable seats, adequate networks, and a quiet room. This activity is always carried out to remind participants that the learning environment can support the learning process. Trainees have to practice the camera and microphone. This activity is carried out to determine the readiness of the training participants in participating in learning. Participants who want to ask questions are asked to press the raise button. After all participants understand the class begins. The graphic image shows the level of understanding of online learning before training 37 participants understand online learning and 15 participants do not understand shown in Fig. 3.

The figure shows that after attending the training 51 participants understand online learning. This increase is very significant. In this case, all participants in Understanding here can be defined as someone who has been involved in online learning either as a participant or resource person and can follow it well. Participants who understood the preparation of online learning before the training 24 understood and 27 did not understand. This happens when they find out that their online learning is doing what they know without understanding a good procedure after following 51 participants understanding and practicing learning only correctly. Knowledge of the implementation of online learning 19 participants understood and 33 participants did not understand learning only well. after the online learning training 50

participants understood well about the implementation of online learning and 2 participants did not understand well.

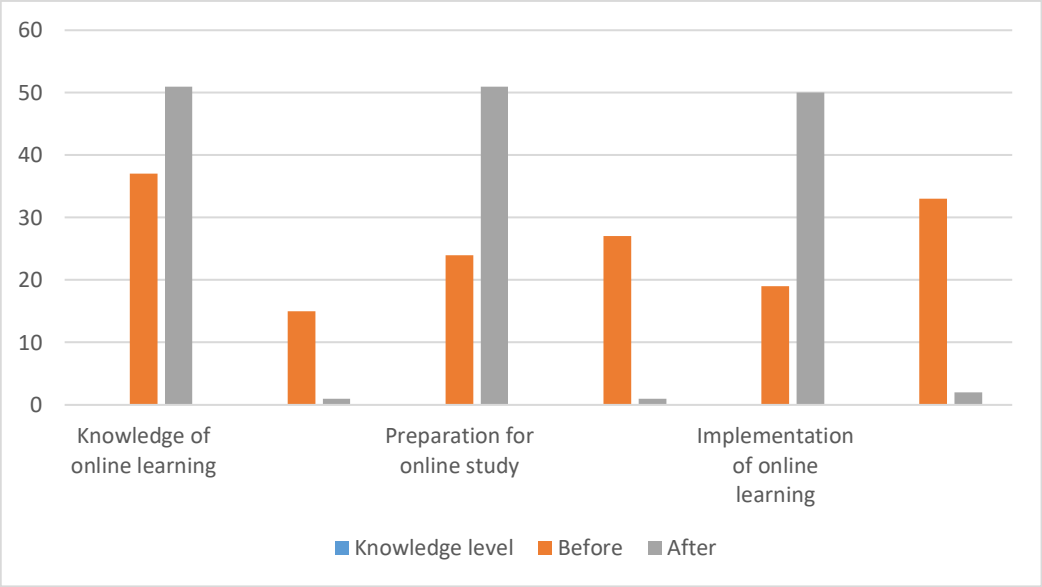

Fig. 3. Knowledge level

Furthermore, presenting synchronous online learning materials with direct learning methods where the presenters make presentations directly in the zoom application and listen to the material delivered. All participants were very enthusiastic about participating in this training with room training so that it was known to all participants. After the presentation of the training material, a question-and-answer session was held and Pak Khamim was chosen to ask questions. How to do an assessment in the affective domain for students with the implementation of synchronous bold learning. After that, Pak Budi was chosen, after being given the opportunity, Pak Budi asked 'how to develop character in courageous learning'. After finishing, the speaker answered the questions posed by the participants. The speaker answered. In online learning, the affective and character assessment of students can be done by making clear or standard procedures regarding the procedure for implementing synchronous online learning. As we have done now, each participant must be present 15 minutes before the activity starts. This is to foster an attitude of discipline and responsibility. The simplest but this procedure is to determine the initial readiness for each student to take part in learning. Next is their readiness to choose a good place to take part in learning, for example a comfortable room with sufficient light, adequate internet network, supportive seats and chairs. This will form a responsible character, self-regulation or the ability to self-regulate to support their learning activities, as well as an attitude of confidence in following learning. Therefore, ladies and gentlemen, you can write anything related to aspects of attitude and character that need to be developed.

Next is the closing, the presenter enriches the material which is considered important as a reminder for the training participants so that the material that has just been delivered can be well received. after it is felt, the learning is closed with greetings.

During the training activities some things are technically easy to do but this procedure is often forgotten. During the implementation of the practice, most of the participants did not explain the learning procedures so they were used to carrying out these activities. Some teachers do not remind students to look at the camera so that students are not seen. This activity is important to do as a form of character building to be able to increase a sense of responsibility, confidence, and the ability to express opinions. After being given an explanation of the meaning of the importance of carrying out activity procedures.

This training involves many senior teachers who need special guidance on technology. The existence of this training can increase their motivation to carry out online learning. According to them, activities like this are refreshing in the implementation of online learning due to the covid-19 pandemic, so that their motivation is increased and they are confident in operating bold learning equipment.

During the activity, he gradually understood the importance of carrying out online learning procedures, for example, the teacher stated "I have not realized the importance of carrying out procedures properly, after I did the learning it became better and my concentration and motivation to learn was much better". some of the participants also felt the same way. When students don't turn on the camera, it turns out that many of them when called, the response is long or even doesn't respond at all.

4. Conclusion

The implementation of online learning procedures is the initial standard for the successful implementation of bold learning. The training for teachers on managing synchronous learning was enthusiastically welcomed. Synchronous online learning management training helps them in managing online classes which can increase student motivation and interaction during learning.

Acknowledgment

In this section, you can acknowledge any support given which is not covered by the author contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).

Author Contribution

The community service method is carried out using the synchronous bold method.

Funding

In this section, you can acknowledge any support given which is not covered by the author contribution or funding sections. This may include administrative and technical support, or donations in kind (e.g., materials used for experiments).

Conflict of Interest

The authors declare no conflict of interest.

References

[1] K. Malbul, S. Katwal, S. Maharjan, S. Shrestha, R. Dhital, and A. P. Rajbhandari, “Appendicitis as a presentation of COVID-19: A case report,” *Ann. Med. Surg.*, vol. 69, p. 102719, 2021, doi: 10.1016/j.amsu.2021.102719.

[2] T.-Y. Chang, M.-L. Hsu, J.-S. Kwon, M. L. S. Kusdhany, and G. Hong, “Effect of online learning for dental education in asia during the pandemic of COVID-19,” *J. Dent. Sci.*, vol. 16, no. 4, pp. 1095–1101, Oct. 2021, doi: 10.1016/j.jds.2021.06.006.

[3] D. J. Lemay, P. Bazelais, and T. Doleck, “Transition to online learning during the COVID-19 pandemic,” *Comput. Hum. Behav. Reports*, vol. 4, p. 100130, Aug. 2021, doi: 10.1016/j.chbr.2021.100130.

[4] N. A. Jogezai, F. A. Baloch, M. Jaffar, T. Shah, G. K. Khilji, and S. Bashir, “Teachers’ attitudes towards social media (SM) use in online learning amid the COVID-19 pandemic: the effects of SM use by teachers and religious scholars during physical distancing,” *Heliyon*, vol. 7, no. 4, p. e06781, Apr. 2021, doi: 10.1016/j.heliyon.2021.e06781.

[5] M. Al-Nasa'h, L. Al-Tarawneh, F. M. Abu Awwad, and I. Ahmad, "Estimating students' online learning satisfaction during COVID-19: A discriminant analysis," *Heliyon*, vol. 7, no. 12, p. e08544, Dec. 2021, doi: 10.1016/j.heliyon.2021.e08544.

[6] R. E. H. Wertz, "Learning presence within the Community of Inquiry framework: An alternative measurement survey for a four-factor model," *Internet High. Educ.*, vol. 52, p. 100832, Jan. 2022, doi: 10.1016/j.iheduc.2021.100832.

[7] E. L. Karcher, D. Koltes, B. Wenner, and J. Wells, "Sparking curiosity and engagement through online curriculum," *Poult. Sci.*, vol. 101, no. 2, p. 101577, Feb. 2022, doi: 10.1016/j.psj.2021.101577.

[8] J. S. Jeong and D. González-Gómez, "Assessment of sustainability science education criteria in online-learning through fuzzy-operational and multi-decision analysis and professional survey," *Heliyon*, vol. 6, no. 8, p. e04706, Aug. 2020, doi: 10.1016/j.heliyon.2020.e04706.

[9] Q. Zhang et al., "The evaluation of online course of Traditional Chinese Medicine for Medical Bachelor, Bachelor of Surgery international students during the COVID-19 epidemic period," *Integr. Med. Res.*, vol. 9, no. 3, p. 100449, Sep. 2020, doi: 10.1016/j.imr.2020.100449.

[10] M. Prasad, D. R. Zheng, D. Mery, D. Puthal, S. Sundaram, and C. T. Lin, "A fast and self-adaptive on-line learning detection system," *Procedia Comput. Sci.*, vol. 144, pp. 13–22, 2018, doi: 10.1016/j.procs.2018.10.500.

[11] O. Zawacki-Richter and C. Latchem, "Exploring four decades of research in Computers & Education," *Comput. Educ.*, vol. 122, pp. 136–152, 2018, doi: 10.1016/j.compedu.2018.04.001.

[12] F. L. Chen, Y. F. Chen, Y. Q. Peng, B. F. Guo, and W. T. He, "Research and Development of Intelligent Learning Aided Software," *Procedia Comput. Sci.*, vol. 154, pp. 249–255, 2018, doi: 10.1016/j.procs.2019.06.037.

[13] X. Song, Y. J. Min, L. Da-Xiong, W. Z. Feng, and C. Shu, "Research on Text Error Detection and Repair Method Based on Online Learning Community," *Procedia Comput. Sci.*, vol. 154, pp. 13–19, 2018, doi: 10.1016/j.procs.2019.06.004.

[14] Y. Ma, Y. He, and Y. Tian, "Online Robust Lagrangian Support Vector Machine against Adversarial Attack," *Procedia Comput. Sci.*, vol. 139, pp. 173–181, 2018, doi: 10.1016/j.procs.2018.10.239.

[15] A. M. Mallinson, A. J. Mcgrath, and J. Marwick, "P238 The use of an online learning module (LearnPro NHSTM) to educate and assess staff working in cystic fibrosis care," *J. Cyst. Fibros.*, vol. 17, p. S126, 2018, doi: 10.1016/S1569-1993(18)30533-2.

[16] O. E. Llantos and M. R. J. E. Estuar, "Characterizing Instructional Leader Interactions in a Social Learning Management System using Social Network Analysis," *Procedia Comput. Sci.*, vol. 160, pp. 149–156, 2019, doi: 10.1016/j.procs.2019.09.455.

[17] N. Y. Yen, J. C. Hung, C.-C. Chen, and Q. Jin, "Design of a computational model for social learning support and analystics," *Comput. Human Behav.*, vol. 92, pp. 547–561, Mar. 2019, doi: 10.1016/j.chb.2018.07.042.

[18] S. Delva, M. Nkimbeng, S. Chow, S. Renda, H.-R. Han, and R. D'Aoust, "Views of regulatory authorities on standards to assure quality in online nursing education," *Nurs. Outlook*, vol. 67, no. 6, pp. 747–759, Nov. 2019, doi: 10.1016/j.outlook.2019.06.011.

[19] B. G. Gameel and K. G. Wilkins, "When it comes to MOOCs, where you are from makes a difference," *Comput. Educ.*, vol. 136, pp. 49–60, Jul. 2019, doi: 10.1016/j.compedu.2019.02.014.

[20] O. Mirzaei, J. M. de Fuentes, J. Tapiador, and L. Gonzalez-Manzano, "AndrODet: An adaptive Android obfuscation detector," *Futur. Gener. Comput. Syst.*, vol. 90, pp. 240–261, Jan. 2019, doi: 10.1016/j.future.2018.07.066.

[21] H. Lu, H. Wang, S. W. Yoon, D. Won, and S. Park, "Dynamic Predictive Modeling of Solder Paste Volume with Real Time Memory Update in a Stencil Printing Process," *Procedia Manuf.*, vol. 38, pp. 108–116, 2019, doi: 10.1016/j.promfg.2020.01.015.

[22] R. van Roy, S. Deterding, and B. Zaman, "Collecting Pokémon or receiving rewards? How people functionalise badges in gamified online learning environments in the wild," *Int. J. Hum. Comput. Stud.*, vol. 127, pp. 62–80, Jul. 2019, doi: 10.1016/j.ijhcs.2018.09.003.

[23] A. F. Zulfikar et al., "The Effectiveness of Online Learning with Facilitation Method," *Procedia Comput. Sci.*, vol. 161, pp. 32–40, 2019, doi: 10.1016/j.procs.2019.11.096.

[24] D. Sulisworo, M. Fitrianawati, I. Maryani, S. Hidayat, E. Agusta, and W. Saputri, "Students' self-regulated learning (SRL) profile dataset measured during Covid-19 mitigation in Yogyakarta, Indonesia," *Data Br.*, vol. 33, p. 106422, Dec. 2020, doi: 10.1016/j.dib.2020.106422.

[25] D. E. Yawson and F. A. Yamoah, "Understanding satisfaction essentials of E-learning in higher education: A multi-generational cohort perspective," *Heliyon*, vol. 6, no. 11, p. e05519, Nov. 2020, doi: 10.1016/j.heliyon.2020.e05519.

[26] A. M. Sindiani et al., "Distance education during the COVID-19 outbreak: A cross-sectional study among medical students in North of Jordan," *Ann. Med. Surg.*, vol. 59, pp. 186–194, Nov. 2020, doi: 10.1016/j.amsu.2020.09.036.

[27] W. Kotłowski, "Scale-invariant unconstrained online learning," *Theor. Comput. Sci.*, vol. 808, no. 2016, pp. 139–158, Feb. 2020, doi: 10.1016/j.tcs.2019.11.016.

[28] C. M. Dagwasi and G. A. Opiniano, "No Filipino learners left behind: Anticipating health risks and remedies of online learning," *Public Heal. Pract.*, vol. 1, p. 100062, Nov. 2020, doi: 10.1016/j.puhip.2020.100062.

[29] S. Lage-Cal, M. B. Folgueras-Díaz, M. Alonso-Hidalgo, D. García-Menéndez, and F. J. Fernández-García, "Investigation of the effectiveness of online learning tools for energy performance certificates preparation," *Energy Reports*, vol. 6, pp. 609–614, Feb. 2020, doi: 10.1016/j.egyr.2019.09.034.

[30] A. Nasir et al., "The outbreak of COVID-19: Resilience and its predictors among parents of schoolchildren carrying out online learning in Indonesia," *Clin. Epidemiol. Glob. Heal.*, vol. 12, p. 100890, Oct. 2021, doi: 10.1016/j.cegh.2021.100890.

[31] T. Binali, C.-C. Tsai, and H.-Y. Chang, "University students' profiles of online learning and their relation to online metacognitive regulation and internet-specific epistemic justification," *Comput. Educ.*, vol. 175, no. August, p. 104315, Dec. 2021, doi: 10.1016/j.compedu.2021.104315.

[32] S. Muflih, S. Abuhammad, S. Al-Azzam, K. H. Alzoubi, M. Muflih, and R. Karasneh, "Online learning for undergraduate health professional education during COVID-19: Jordanian medical students' attitudes and perceptions," *Heliyon*, vol. 7, no. 9, p. e08031, Sep. 2021, doi: 10.1016/j.heliyon.2021.e08031.